

Determining the Efficacy of the Community Research Fellows Training: An 18-Month Evaluation

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Abstract

Community members equipped with knowledge, training, resources, and opportunity acquired through structured research educational programs can strengthen the research relationship and improve the process for community-based participatory research. The purpose of this research is to explore the sustained efficacy of the Mississippi Community Research Fellows Training conducted by the 18-month post-completion of the first cohort. A mixed method approach that included fielding a brief survey and having a focus group discussion among fellows was applied to the study to determine impact, value, and utility of skills learned. Seventeen of the 25 Cohort 1 fellows completed an online survey. Six participated in a focus group. The participants recognized the relevancy of the skills acquired and had applied their training to forge new collaborations with researchers and community organizations and contributed to the acquisition of resources for their communities and disseminated culturally appropriate health information to the residents. Recommendations for the future training programs were identified. The findings could ensure the long-term utility of the lessons and skills learned.

Introduction

Researchers seeking to address clinical, behavioral, and environmental problems that affect disparate and diverse communities have found value in forging relationships with the community of interest (Israel, Coombe, Cheezum, Schulz, McGranaghan, Lichtenstein, Reyes, Clement, & Burris, 2010; Hsu, Peng, Chen, Lin, Chang, Chen, Hugh, Ho, Chen, Lee, & Huang, 2015; Komaie, Ekenga, Sanders, & Goodman, 2010; & Minkler, 2010). Community-based participatory research (CBPR) that fully engages members from the community of interest has reported an increase in clinical uptake and prolonged behavioral changes (Huang, Lipman, & Mullins, 2017; Lam, Sherbourne, Tang, Belin, Young-Brinn, Miranda, & Wells, 2016). Often the research methods, processes, and terminologies are not thoughtfully translated to the community members and the benefits of the partnerships are not realized (Huang et al., 2017; Wilkins, 2011).

Community members equipped with the knowledge and resources can strengthen the research relationship and provide insight about the area (Komaie et al., 2010; Israel et al., 2010). Training programs have been utilized to prepare health professionals, academicians, and students to conduct research that addresses community health. Research has shown that lay community members demonstrate high levels of satisfaction and increased self-efficacy upon completion of

the training (de Vries & Pool, 2017; Lam et al., 2016; D'Agostino McGowan, Stafford, Thompson, Johnson-Javois, & Goodman, 2015; Goodman, Dias, & Stafford, 2010; King, Pardo, Norris, Diaz-Romero, Morris, Vassar, & Brown, 2015; Rafie, Ayers, Cadet, Quillin, & Hackney, 2015; Woldie, Feyissa, Admasu, Hassen, Mitchell, Mahew, McKee, & Balabanova, 2018).

A quantitative evaluation of the Community Research Fellows Training (CRFT) program implemented in the St. Louis area identified an increase in participants' knowledge and overall participant and faculty satisfaction (D'Agostino McGowan et al., 2015). The findings were determined by analyzing the 44 participants' baseline to post CRFT course test scores. Participants who had never taken a research course experienced a greater increase in knowledge than those who had previously been exposed to research content. The increase in knowledge scores and satisfaction rating demonstrated that the program met its goals. The evidence suggests CRFT was successful at "initiating fellow-inspired community-centric pilot projects" (D'Agostino McGowan et al., 2015, p. 180).

As part of a larger in-depth evaluation, Komaie et al. (2017) conducted a qualitative evaluation of the CRFT program to determine if it provided a favorable environment for increasing the participants' research literacy and critical consumption of the research. Fellows of

two cohorts were recruited for semi-structured, in-person interviews. Thematic analysis was used on the interview data. Previously collected quantitative survey data helped to inform the interview guide and develop the codebook. The qualitative findings complemented the quantitative data and showed evidence of increasing the fellows' capacity to partner with academic researchers to address health disparities in the area (Komaie et al., 2017). Findings revealed the importance of accommodating the various levels of education and learning styles for participants.

An evaluation of a 12-week intensive grant writing training for academic/community teams suggests the training series increased the participants' self-efficacy. The grant training produced six of the seven participants' applications being funded for a partnered community-engaged or health service project (King et al., 2015). The academic/community teams were comprised of at least two community lay persons. King and his colleagues acknowledged the importance of placing the right people together and reaffirmed that the community members and the academics must be committed to working together to achieve a common goal.

Although the literature exploring the knowledge and self-efficacy gained by participants attending community research trainings was extensive, there was insufficient information on whether knowledge was retained and applied long after the program had ended. Baseline and post assessments have been conducted to determine knowledge gain and are the standard evaluation approach for these trainings (D'Agostino McGowan et al., 2015; King et al., 2015). Few of the studies identified have conducted long-term evaluation of the CBPR trainings for lay community participants (Theurer, Pike, Sehgal, Fischer, & Collins, 2015). In an effort to establish efficacy, the study explored the long-term utilization of CRFT lessons and the real-world application of the acquired skills.

Mississippi Community Research Fellows Training

In 2014, the Mississippi State Department of Health (MSDH), Office of Health Disparity Elimination (OHDE) implemented its first Community Research Fellows Training in the Jackson, Mississippi, area approved under MSDH IRB Protocol #102814. The Mississippi CRFT was based on the Community Research Fellows Training that was first implemented by Washington University School of Medicine (WUSM) and

the Siteman Cancer Center in St. Louis. The WUSM CRFT was modeled after the Community Alliance for Research Empowering Social Change (CARES). WUSM expanded the CARES goals and added new topics to the curriculum (D'Agostino McGowan et al., 2015; Goodman, et al., 2010; Goodman, Si, Stafford, Obasohan, & McHunguzi, 2012). The CRFT program was designed: 1) to enhance the lay community's knowledge and understanding of research and 2) to create a pool of trained community members who could participate more actively in research to address the health issues of their community. The CRFT program was created to promote collaborations between the community members and the researchers and to spur continued interest among the community members to actively navigate the research spectrum.

The Mississippi CRFT program leveraged the existing evidence-based curriculum (Goodman, Dias & Stafford, 2010; Goodman, Gbaje, Yassin, Johnson Dias, Gilbert, & Thompson, 2018; Goodman et al., 2012) and incorporated culturally appropriate content with a local focus. The case studies and examples were tailored using common vernacular and included references of familiar neighborhoods, landmarks, and healthcare facilities (Coats, Stafford, Thompson, Javois, & Goodman, 2015; D'Agostino McGowan et al., 2015; Davis, Aromaa, McGinnis, Ramsey, Rollins, Smith, Beamer, Buckley, Stange, & Fagnan, 2014; Stewart, Felix, Cottoms, Olson, Shelby, Houff, Colley, Sparks, & McKindra, 2013; Stewart, Felix, Olson, Cottoms, Bachelder, Smith, Ford, Dawson, & Green, 2015; Goodman et al., 2012; Watts, Christopher, Streitz, & McCormick, 2005). The group discussions covered the social determinants of health as well as data specific to racial disparities and other health issues with high prevalence and incident rates affecting the state. The CRFT fellows engaged in field activities including photovoice and a windshield tour where they documented factors that would impede health and well-being of the residents, devising a plan of action to inform community leaders and decision makers. The CRFT fellows completed learning exercises and weekly home assignments to increase knowledge of qualitative and quantitative research methods, health disparities, health literacy, cultural competency, research ethics, human subject protection, clinical trials implementation, program evaluation, and grant writing. Each course was taught by an expert in an area of public

health, medicine, policy and research methods, and possessed an extensive background working with communities. The comprehensive program included: 1) weekly sessions and assignments, 2) field work, 3) assessments and evaluation projects, 4) grant proposal writing and submission, 5) Institutional Review Board application submission, 6) conducting literature review, and 7) composing problem statements and research questions (D'Agostino McGowan et al., 2015; de Vries & Pool, 2017; Komaie et al., 2017; Lam et al., 2016).

The purpose of this research was to explore the sustained efficacy of the CRFT and to determine any value added by the program for the first cohort of lay community members. Efficacy was defined as "the performance of the program to produce the intended outcome" 18 months post completion of the training program (Flay, Biglan, Boruch, Gonzalez Castro, Gottfredson, Kellam, Mo'scicki, Schinke, Valentine, & Ji., 2005, p.3; Pam, 2013). The research questions were: What CRFT skills/lessons are currently being used? How are skills/lessons being applied? What effect, if any, has there been on the fellows' professional life or personal life? How has the training impacted the fellow's role in the workplace and in the community?

Method

The Mississippi CRFT was implemented in Jackson, Mississippi. At 81%, the city has one of the highest concentrations of African Americans in the nation (U.S. Census Bureau, 2017). African Americans in this area traditionally suffer disproportionately from chronic diseases and are faced with environmental factors that affect their overall health and well-being (El-sadek, Zhang, Vargas, Funchess, & Green, 2015). Engaging minorities and underserved groups that are often absent from the research process can improve the uptake and dissemination of study findings and improves the trust among the racial/ethnic communities (Fastring, Mayfield-Johnson, Funchess, Green, Walker, & Powell, 2018; Lam et al., 2016). The Cohort 1 fellows were older than 18 and able to make a three-hour, once a week commitment for 16 consecutive weeks.

The MSDH Office of Health Disparity Elimination program administrators captured pre- and post-training measures. The previous evaluation included baseline, midpoint, and final assessments (Bright, 2016; Fastring et al., 2018; Mayfield-Johnson & Fastring, 2014a, 2014b, 2014c). This project consisted of an 18-month

post-training evaluation relying on input from the first CRFT cohort. The assessments were designed to understand long-term impact of CRFT by looking at utilization and value added.

Participants

For the purpose of determining program efficacy, the study recognized fellows as the Cohort 1 totaling 25 individuals; and participants denote the individuals who responded to the survey and attended the focus group for the purpose of determining program efficacy. Participant recruitment was purposeful in that all fellows (n=25) of CRFT Cohort 1 were encouraged to participate (Palinkas, Horowitz, Green, Wisdom, Duan, & Hoagwood, 2015). Cohort 1 (n=25) was comprised of 23 African-American women, one Caucasian woman and one African-American male. The fellows had bachelor's degrees in various subjects and 60% (n=16) had master's degrees. Fewer than five (20%) of the fellows had had a research course. More than 40% (n=11) of the Cohort 1 fellows were employed with community/grassroots organizations, 16% (n=4) in government, 20% (n=5) as community health workers, and 16% (n=4) as community volunteers. The fellows had limited to no health research experience prior to CRFT, which was one of the criteria for acceptance into the course. The application review included scoring: 1) prior research experience, 2) connection to the community, and 3) support from their organization or church. Those selected had the lowest score with 1 equating to "Best Fit." A score of 3–5 were not selected. In the course, participants who knew less about research were given priority over those who exhibit more knowledge about research. The evaluation was conducted by the MSDH, 18 months post-completion with the participants of the first cohort for the Mississippi CRFT.

Materials and Procedure

A mixed method approach was applied to the study and included fielding a brief survey and having a focus group discussion among CRFT's fellows. The research aimed to explore the fellows' long-term utilization of skills learned in the CRFT program and its utility 18 months following completion. For this study, utility is defined as "the extent to which there is beneficial impact on their work" (U.S. Department of Health and Human Services [USDHHS], 2011, p. 102). Value added is defined as "the importance, worth, and

usefulness that has been accumulated as a result of a period of time” (Harvey, 2004; Shah, 2017). The survey and focus group helped to validate findings (Wisdom & Creswell, 2013). The explanatory model is used with the qualitative data from the focus groups to illuminate the quality of the numerical data (Almalki, 2016; Rominger, 2017; Wisdom & Creswell, 2013,). The two data sources were complementary and enabled inter-method clarification (Almalki, 2016; Hansen, O’Brien, Meckler, Change & Guise, 2016).

All fellows (N=25) of Cohort 1 were encouraged to complete the brief survey and participate in the focus group(s). The fellows received electronic messages about the 18-month evaluation, including the link to the online survey and another email that included the focus group instructions. The study participants (n=17) completed a consent form acknowledging the awareness of their rights as a volunteer. The MSDH Institutional Review Board approved the project. The findings obtained will be used to improve CRFT’s strategies and methods for preparing knowledgeable and skilled lay persons to work in collaborative community research. Information may also be used to support the solicitation of funds for specific community projects.

Survey

The participants’ input and perceptions were captured using a 16-item cross-sectional survey. The survey was validated by a team of experienced state health department professionals. The instrument was created in Survey Monkey with nine closed-ended questions and seven open-ended questions. Dichotomous and multiple-choice questions were included and took 15 to 20 minutes to complete. The survey was used to capture basic numerical data for generalizing across the cohort (Almalki, 2013; Foley, 2018; Jansen, 2010). Program terminology was presented as selections for closed-ended questions. The open-ended questions allowed the participants to explain in their own words the effect the training had on personal, professional, and community relationships. The results from the survey were used to identify topics to further explore during the focus group. The cohort had already been defined in previous MSDH reports; therefore, demographic information was not captured on this survey. The survey was available online from April–May 2016. E-mail reminders were sent bi-weekly to encourage completion.

Focus group

The focus group was designed to stimulate discussion among the participants who had similar experience of the training but could share some differences about the utilization and value gained.

The participants who completed the survey were given an opportunity to opt-in to a focus group to further expand upon the survey comments. Those who contacted the office were enrolled in the focus group. The focus group was held on July 28, 2016, in the Underwood Auditorium of the Mississippi State Department of Health. The focus group was facilitated by a doctoral student in the School of Public Health at Jackson State University. The facilitator directed the focus group in accordance with the OHDE-approved focus group protocol guide. Open-ended questions were asked regarding the participants’ experiences using their CRFT lessons; plans for community-based participatory research or other research endeavors; and their ability to identify, initiate and evaluate an intervention to address a community health need. The focus group guide listed the open-ended questions that were guided by topics drawn from the survey (see Table 1 for focus group questions). Initial review of the session notes occurred within 24 hours between the focus group moderator and the staff of the MSDH.

Data Analysis

Descriptive statistics were used to describe the survey responses. Numerical survey data were analyzed using the internal analytic resources of the online survey management application and were presented as frequencies and percentages

Table 1. Focus Group Discussion Guidelines

Community Research Fellows Training (CRFT) Program	• What are your thoughts about community-based participatory research since completing CRFT? • What has been the impact of CRFT on your job or career? • What skills or techniques acquired through the CRFT program have you most utilized? • What could be done to improve the post CRFT experience?
Role of CRFT in Your Community	• What pressing health issues are facing your community? • How has your CRFT training prepared you to address those issues?

(Almalki, 2016; Foley, 2018). Survey topics that received the highest response were foci of probing during the focus group (Komaie et al., 2017).

According to Rennekamp and Nall (2016), focus group data analysis involves indexing, management, and interpretation. Therefore, thematic analysis was the best method to apply to the data (Boyatzis, 1998). A qualitative thematic analysis of the focus group discussion was used; allowing for the identification of reoccurring points of interest (Boyatzis, 1998; Creswell, 2009; Komaie et al., 2017). The audio recording from the focus group discussion was transcribed verbatim in English. The CRFT focus group data was reviewed for common topics, content was grouped together, summary statements established, and themes identified. Initial codes identified through line-by-line review were grouped as common categories based on association and similarities (Creswell, 2009). The themes were identified from the categories that pertained to the initial purpose and questions. Two coders reviewed the emerging themes. Discussions about the themes were conducted with the research team. The multiple reviews provided complementing perspectives of the data and helped to increase the validity of the data (Creswell, 2009; Hansen et al., 2016). Key themes were used to present findings resulting from the focus group (Boyatzis, 1998; Creswell, 2009; Rennekamp & Nall, 2016). Lastly, survey data and focus group data were compared to identify complementary points of interest (Almalki, 2016; Foley, 2018; Jansen, 2010).

Results

Survey

Seventeen Cohort 1 fellows completed and submitted the 18-month evaluation survey. All the participants rated their understanding of their role in community research as high to very high. As a result, relationships were maintained with the CRFT program administrators (yes, 81.25%), Cohort peers (n=14; 82%), and program instructors (n=7; 43.75%). More than 94% (n=16) of the participants expressed that the CRFT information and skills presented had been highly useful. Approximately 70% of the participants had applied their CRFT skills to: 1) participating in focus groups, community forums and health service initiatives, 2) writing or developing grants and responding to community Requests for Proposals, and 3) conducting evaluations for community organizations. Nearly 20% identified

the most valuable skill acquired as cultural competency. Other skills such as qualitative and quantitative research methods (n=3), managing data (n=3), and community outreach (n=3) shared equal importance among the participants. There were high response rates for having applied the skills learned in CRFT. Results from the survey showed forming new collaborative relationships as a point to probe during the group discussion (Komaie et al., 2017).

Focus Group

A focus group should consist of a minimum of six individuals (Komaie et al., 2017; Krueger & Casey, 2000). The study focus group was comprised of six African-American women from the 17 survey respondents. Results from the focus group allowed for an expansion of the topics prioritized by the survey including which skills have been applied, recent changes in professional and personal development, and results of their efforts in the community, work, and home. Almalki (2016) and Wisdom and Creswell (2013) acknowledge the complementary effect using the qualitative approach to investigate the numerical findings. The six female participants shared similar positions on the benefits of the CRFT. The final themes were: 1) the impact of the CRFT program on professional and personal development, 2) skills acquisition and utilization, and 3) the role of community-based participatory research. The explanation by theme is presented in the following and includes respondents' quotes pertaining to the identified topic.

Theme 1: Impact of the Community Research Fellows Training (CRFT) program. The driver for engaging in such a program is whether it will add value to one's personal or professional endeavors (Hotze, 2011). One participant noted, "The training has opened up doors for me to get on more projects and bring new ideas to help the study and community come together."

Several participants mentioned that their communities were often at a disadvantage when healthcare organizations entered the community to conduct research. This observation aligns with what Wilkins (2011) found in that due to the prior lack of understanding pertaining to community research, the relationship had been unbalanced and was not mutually beneficial. One participant shared, "Some of the organizations or service providers have often been reluctant or slow to assign resources to our community and at the time

we didn't know better." Another participant said, "As a result of the program, I am able to advocate on behalf of the community. I have been able to take our issues to agency boards and see about getting needed resources."

According to participants the training strengthened their ability to engage in reasonable conversations about research and helped them to express issues in their community they felt should be at the forefront of the public health and academia research agenda. Two participants noted the following: "I am more confident in my ability to step into leadership roles and work with the researchers coming into our churches and neighborhoods," and "My ability to provide health education, build these relationships and partner with healthcare teams was learned in the cohort."

The participants expressed the value of their training in their professional environment as well. Though no direct career advancement had occurred, they were leveraging the knowledge from the program to increase their participation in the workplace. One participant shared, "The knowledge that I acquired through the CRFT training set me on a path to take and pass the Certified Health Education specialist exam" (a competency-based test for the health education professional). Another participant said, "Since CRFT, I have served as a liaison between the community and the administration of a local health organization seeking to recruit study participants."

Theme 2: Skills acquisition and utilization.

The participants reported using concepts and lessons from two or more of the courses presented during the training to start programs at their church. One participant explained how she had utilized the cultural competency training to better service her diverse clientele. One participant said, "I admit I was not aware of the need for cultural sensitivity and now I recognize how it can improve interaction."

The participants discussed the importance of being able to apply the lessons learned to achieve desired goals in their communities. The women reported having an opportunity to work on a mini-grant. Several of the Cohort 1 fellows had implemented an intervention in their community. A participant expressed, "The experience of grant writing taught us how to write for seed money to support projects that were beneficial to our community."

Another stated, "I was on a team with others who were more experienced with grant writing. As

a result, I had only a small role in the development of the grant. Now, I'm involved in the grant process as much as possible. I want to be involved from the beginning to the submission."

The participants were encouraged to write for mini-grants and to initiate pilot studies (King et al., 2015). The CRFT program administrators created opportunities within the curriculum and announced other opportunities with the MSDH, OHDE, and the local school district.

There was consensus among the participants that the topics and lessons presented were valuable for achieving their primary goals. Four of the participants acknowledged their use of the needs assessment instruction. The participants reported that they were more frequently conducting formal and informal needs assessments within their neighborhoods.

One participant shared, "I have used photovoice for capturing problems in my neighborhood. I take the images of the problems on the street and then send the pictures to my city council so they can address the problems."

Photovoice, a qualitative data collection method using images to document health and environmental issues in the community, was viewed as a user-friendly and accessible tool for the participants to capture community priorities (Wang & Burris, 1997). A participant expressed, "I have incorporated the photovoice technique. It was easy to learn."

Theme 3: Value of community-based participatory research. Additional probing helped to identify the participants' perceptions of community-based participatory research and if the research activities in their community addressed the health needs of the residents. One participant shared, "We have issues in our community with researchers. They must establish trust, and if so we will provide all the data and information that's needed. However, we need to also see some benefit from the research."

Two of the respondents mentioned that CRFT had shown them the need for building trust and understanding within the community. One said, "I know the questions to ask; so, I aim to get my community to buy in to the importance of research and to get them comfortable with sharing their information."

The group expressed that it was vital for the researchers to ensure the community understood the benefits of participating in research and to receive helpful information at

the close of any community project. Similar to D'Agostino McGowan and colleagues (2015), the participants felt that interaction in the community was necessary. They recognized community-based participatory research as an asset to the community, if the researchers are focused on providing information that the community could use. Additionally, participants expressed that being a CRFT fellow empowered them to ensure research projects fairly represented their residents.

The participants shared that issues such as lack of knowledge about healthcare services and programs and a lack of trust in the healthcare system were reasons for the lack of participation in community-based research. There was consensus that increasing health literacy would improve the uptake of research participation. One participant said, "Low literacy in the African-American community is a problem."

The participants have attempted to share more health information with the members of their communities. Using their CRFT training, several of the participants have worked to develop and deliver appropriately targeted health education and information to the various groups in their churches, schools, and civic organizations. One participant shared, "We presented plays using church members and youth, as well as language and situations that would be familiar to the congregation."

Overall, the participants acknowledged that the interaction between the researchers and an informed community was important to ensuring public health. Providing translated, audience-appropriate details of the findings for the community-based research projects would eliminate the perception of "researchers running in, getting what they want, and then leaving."

Discussion

The purpose of the research was to examine the sustained efficacy of the Mississippi Community Research Fellows Training program. The study examined the utilization and value added for the participants. The topics that received the highest responses were further probed during the focus group. The qualitative statements and survey results confirmed an increase in their knowledge of public health research. The findings were similar to prior CRFT evaluations (D'Agostino McGowan et al., 2015; Goodman, et al, 2012, 2010; Fastring et al., 2018). New knowledge areas for the participants were demonstrated by comments like:

My ability to provide health education, build these relationships and partner with healthcare teams was learned in the cohort. ...I admit I was not aware of the need for cultural sensitivity and now I recognize how it can improve interaction. ...The knowledge that I acquired through the CRFT training set me on a path to take and pass the Certified Health Education specialist exam, a competency-based test for the health education professional. ... I have incorporated the photovoice technique. It was easy to learn.

More than 90% of the participants thought the CRFT information and skills presented have been highly useful and verbal confirmation of program satisfaction was received during the focus group. These findings align with prior evaluations to determine knowledge increase and program satisfaction (D'Agostino McGowan et al, 2015; Goodman et al., 2010, 2012; Komaie et al., 2017; Theurer, 2015). Nearly two years later, the CRFT participants' attitude toward and perceptions of the program remained positive.

According to the USDHHS (2011), one can ask questions, consult stakeholders, and obtain feedback to make assessments to improve the program (Flay et al., 2005; Pam, 2013). Seeking to understand the utility and value added from the CRFT program, explanation was sought pertaining to the application of lessons and benefits to their professional and personal endeavors. The findings revealed that the participants were active in representing their community at the table with the organizations and university researchers who wanted to come to their church or work in their neighborhood. Collaborating with researchers and community organizations increased opportunities to contribute to the grant-writing process and participating in community forums. A small number had worked on a health initiative and assisted with a community assessment. According to Hotze (2011), since risks and benefits of research are shared by the community, community members should be empowered to contribute to the purpose and execution of the project.

The program's effect on the participants' self-efficacy is evident. The data sources suggest the participants are comfortable in their ability to apply what was learned. It is considerable that self-efficacy must preclude long-term utility and application. Evidence has shown that training

improves the participant's self-efficacy (Goodman et al., 2018; King et al., 2017). The increase in confidence removed the fear of collaborative engagement with intellectuals and slowed the need to accept an unequal research partnership (de Vries & Pool, 2017; Israel et al., 2010).

Collaborative relationships with organizations and researchers had increased among the participants, overcoming the lack of trust and unbalanced rewards as an issue (Fastring et al., 2018). This was denoted by several comments, "We have issues in our community with researchers" and "We will provide all the data and information that's needed. However, we need to also see some benefit [from the research]." Other studies have affirmed the challenges that face many minority groups attempting to engage in the research process (Israel et al., 2010; Huang et al., 2017; Wilkins, 2011). The community is often wondering will it be a mutually beneficial relationship (Ramirez, Weaver, Raizner, Dorfman, Herrick, & Gotto, 1977; Jimenéz-Chávez, Rosario-Maldonado, Torres, Ramos-Lucca, Castro-Figuero, & Santiago, 2018). Aware of the racial and economic issues affecting local communities, the Mississippi CRFT program included instruction in cultural competency and sensitivity skills. Cultural competency was identified as the most valuable skill.

The desire for change in their professional endeavors was the primary reason for CRFT participation. Program involvement resulted in changes in career and community life for nearly all participants. Through the narrative, these changes were identified as assuming more responsibilities and taking on leadership roles (King et al., 2018).

More than 70% of the participants confirmed their application of the CRFT skills. During their training, the participants were put into teams to develop and submit a grant. Two of the teams were funded (Fastring et al., 2018). Eighteen months later, participants remained involved in the grant process. One participant had shared that she was "involved in the grant process as much as possible, from the beginning to the submission." Key lessons learned and applied were knowing the questions to ask, preparing an application for seed money to help the community, and recognizing their communities should see benefit/value once the universities and organizations have gone. Jimenéz-Chávez and colleagues (2018) found that training lay community members was an asset for the community. The participants remained focused on applying the skills learned.

While community engagement was not a leading reason for CRFT participation; during the focus group, community-engaged research was a reoccurring topic. The participants recognized their new skills added value to their communities. This was revealed through shared comments such as:

I aim to get my community to buy into the importance of research and to get them comfortable with sharing their information. ... Now, they are a bit more willing to participate in the studies or projects sponsored by the universities. ... We have taken some of the research findings and created lay summaries that could be easily understood and utilized to improve the health of the people at my church.

Researchers have found that trained lay people add to the social capital of the community (Lantz, Viruell-Fuentes, Israel, Softlev, & Guzman, 2001).

A survey and focus group helped to validate the findings (Wisdom & Creswell, 2013). The quantitative data helped to identify important points of interest and the qualitative data from the focus groups provided depth and examples to solidify the program impact (Almalki, 2016; Rominger, 2017; Wisdom & Creswell, 2013).

Comfort with one's ability to master the language and processes of a field will improve the likelihood of application and long-term use (Bandura, 1994). The design and delivery of CRFT course information reinforced the participants' confidence in their ability and capacity to participate in community-based participatory research; moving into new roles of leadership, administration, and services in their community. In addition to the academic researchers, local churches and civic clubs were benefiting from a newly established pool of adept and capable lay persons. The CRFT participants were aware of their worth and value to the researcher. After CRFT, the participants had no reservations about refusing to participate in the research if the relationship was not balanced.

Study Limitations

The study has limitations. The mixed method approach did not give equal status to both quantitative and qualitative information (Almalki, 2016). The findings are not generalizable

and may only apply to the specific fellows of the cohort. While research suggests women are vital to advancing the dissemination of the health education programs (Eftekhari, Falahat, Bejman, Forouzan, Afzali, Heydari, & Mirabzadeh, 2013), the male did not participate in the focus group. The research does not provide insight on the male's ability to receive and translate learned CRFT strategies into community-based participatory research initiatives. Findings from this cohort will be utilized to improve delivery of the program to subsequent cohorts of Mississippi and other regions.

Implications for Practice

These recommendations are based on the input of CRFT Cohort 1 participants. Recommendations were emphasized for these salient areas: self-efficacy, community engagement, and continued learning. King and colleagues (2015) suggested providing opportunities to apply the skills learned. The participants wanted to connect with researchers whose projects could provide a comprehensive, hands-on experience (e.g., recruitment, data collection, data analysis, and presentation of the findings). Connecting the participants with local researchers and placing them on active research projects will help the long-term efficacy of the Mississippi CRFT.

Empowering the participants to serve as community research "champions" can improve self-efficacy and prioritize engaging in the community in new collaborative research opportunities (Israel et al., 2010; Theurer et al., 2015). Fellows' profiles will highlight their training and capacity for assisting with community research.

Additional training is likely to maintain interest for research participation and prompt them to collaborate on future research endeavors (King et al., 2018; Fastring et al., 2018). The participants should be presented with a forum to facilitate ongoing peer-to-peer engagement, share the outcomes, challenges and successes of applying their CRFT techniques in real-world situations, in addition to opportunities for further application and development.

Future cohorts should be evaluated to determine the utility and value added of the Mississippi CRFT program and test whether the introduction of the cohort recommendations can ensure sustained application of the lessons learned. A future study should explore the academic and

community partners' satisfaction working with CRFT fellows and their perception of the utility of their skills.

Conclusion

Achieving program efficacy was ascertained by examining the long-term utility and value of the Mississippi CRFT program. Unanimously, the participants agreed that the training was beneficial and had added value to their professional and civic roles. Eighteen months after completing the program, the 17 participants had forged new collaborations with researchers and community organizations and had applied CRFT skills to negotiating the academic-community relationship, contributing to the acquisition of resources and disseminating health information to inform residents. CRFT skills had been applied in serving as a liaison between the community and the administration of a local health organization as well as participating as the community representative on the Institutional Review Boards.

Participants were able to diminish the traditional power hierarchy of the academic-community research relationship. Participant CRFT skills had a long-term impact, particularly as it related to their self-efficacy for addressing community health and implementing evidence-based interventions. There remained a high level of confidence in their ability to work with researchers and all other stakeholders involved in the research process. General knowledge of community research, the capacity to assess community health priorities, and an ability to access tools and resources, in addition to the implementation of strategies to achieve the health goals for the community are examples of the utilization and application of the CRFT skills.

The attitudes and perspectives of the participants were important for determining how prepared they were to act as agents of change in their communities and helped to direct the type of research initiatives that were introduced into these areas. Coats et al. (2015) and Komaie et al. (2017) had similar findings where a more favorable perception of the program improved the participants' community action. The participants entered the training with different levels of knowledge and experience; but found the Mississippi CRFT program critical in their preparation for navigating the public health research spectrum.

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